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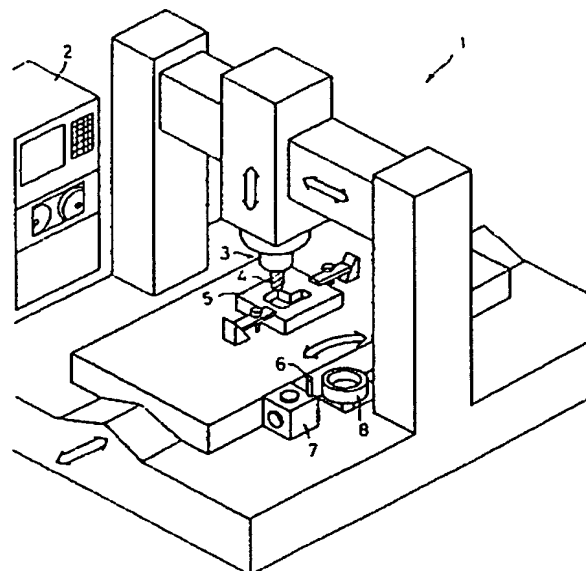
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TITLE : COMPENSATION FOR TOOL  
ABRASION IN NC MACHINE TOOL



**ABSTRACT :** PURPOSE: To reduce the number of tools by judging the need of the tool grinding according to the abrasion of a tool by comparing the shape values such as outside diameter and length of a tool tip with the shape values previously set and working the tool tip to a prescribed shape when the need of the tool grinding is judged and correcting the position of the tool on the basis of the result of the measurement after the working.

CONSTITUTION: After the suspension of working, a main spindle part 3 is shifted to a measurement part (sensor 7), and the outside diameter and length of a tool 4 are measured by the sensor 7, and these values are compared with the previously inputted or measured and memorized tool shape values, and the abrasion quantity of the tool is detected. It is judged if the detected abrasion quantity of the tool is within the standard value of the allowable tool abrasion which is previously set. When the tool abrasion quantity is over the standard value, a signal for requiring the tool grinding is outputted. The main spindle part 3 shifts to a tool grinding part (grinding wheel 8), and the tool 4 is ground to a prescribed shape. After said grinding work, the tool 4 is shifted to the measurement part again, and the length of the tool 4 is measured, and said value is compared with the initial shape value which is previously memorized, and the reduced quantity of the tool is calculated, and the setting position is corrected by said dimension.

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